

WHAT IS CLAIMED IS:

1. A pharmaceutical composition for transdermal delivery comprising:
at least one skin permeation enhancer; and
at least one active ingredient or pharmaceutically acceptable salt thereof,
wherein the composition is for transdermal delivery of the active ingredient.
2. The composition of claim 1 wherein the skin permeation enhancer is present in an amount from about 0.1% by weight to about 20% by weight based on the total weight of the composition .
3. The composition of claim 2 wherein the active ingredient is present in an amount from about 0.1% by weight to about 30% by weight based on the total weight of the composition .
4. The composition of claim 3 wherein the skin permeation enhancer and active ingredient are present in a weight ratio from about 3.0:0.5 to about 0.5:3.0 based upon the total weight of the composition.
5. The composition of claim 4 further comprising at least one effervescent agent wherein the effervescent agent is present in an amount from about 10% to about 90% by weight based on the total weight of the composition.
6. The composition of claim 2 wherein the skin permeation enhancer comprises isopropyl myristate, cetyl palmitate, clarified sesame oil, borage, evening primrose oil, spirulina oil, sunflower oil, safflower oil, flaxseed oil, walnut oil, canola oil, soybean oil, and mixtures thereof.
7. The composition of claim 6 wherein the active ingredient comprises aspirin, sodium salicylate, choline magnesium trisalicylate, salsalate, diflunisal, salicylsalicylic acid, sulfasalazine, olsalazine, acetaminophen, indomethacin, sulindac, etodolac,

tolmetin, diclofenac, ketorolac, ibuprofen, naproxen, flurbiprofen, ketoprofen, fenoprofen, indoprofen, oxaprozin, mefenamic acid, meclofenamic acid, piroxicam, tenoxicam, meloxicam, lornoxicam, phenylbutazone, oxyphenthatrazone, nabumetone, diphenhydramine hydrochloride, clemastine fumarate, brompheniramine maleate, chlorpheniramine maleate, dexchlorpheniramine maleate, triprolidine hydrochloride, promethazine, hydroxyzine hydrochloride, terfenadine, astemizole, azatadine maleate, cyproheptadine hydrochloride, loratadine, carbinoxamine maleate, diphenylpyraline hydrochloride, phenindamine tartrate, tripeleminamine hydrochloride, methdilazine hydrochloride, trimiprazine tartrate, beclomethasone, dipropionate, triamcinolone acetonide, prednisone, Sumatriptan/Imitrex, Imigran, dihydroergotamine, ergotamine tartrate, dolasetron mesilate, dotarizine, flupirtine, tenosal, tolfenamic acid, arotinolol, dihydroergocryptine, cyclosporin, azathioprine, methotrexate, glucocorticoids, penicillamine, hydroxychloroquine, colchicine, allopurinol, probenecid, sulfinpyrazone, ginseng, bilberry, black cohosh, cat's claw, cayenne, chamomile, chaste tree, cranberry, echinacea, eleuthero, ephedra, evening primrose oil, feverfew, flax, garlic, ginger, ginkgo, golden seal, green tea, hawthorn, kava kava, licorice, milk thistle, peppermint, saw palmetto, St. John's wort, methylsulfonyl methane, DMSO, and combinations thereof.

8. The composition of claim 5 wherein the effervescent agent comprises sodium bicarbonate, potassium bicarbonate, lithium bicarbonate, magnesium bicarbonate, calcium bicarbonate, ammonium bicarbonate, and mixtures thereof.

9. The composition of claim 8 wherein the effervescent agent is further combined with at least one acid agent comprising citric acid, succinic acid, fumaric acid, adipic acid, malic acid, and mixtures thereof.

10. The composition of claim 9 wherein the acid agent is present in an amount from about 5% to about 60% by weight based on the total weight of the composition.

11. The composition of claim 10 wherein the composition is a tablet comprising:

at least one skin permeation enhancer in an amount from about 1% to about 5% by weight based on the total weight of the composition; and

at least one active ingredient present in an amount from about 1% by weight to about 10% by weight based on the total weight of the composition;

wherein the composition further comprises

at least one effervescent agent present in an amount from about 30% to about 70% by weight based on the total weight of the composition; and

at least one acid agent present in an amount from about 20% to about 40% by weight based on the total weight of the composition; and

wherein

the skin permeation enhancer comprises isopropyl myristate, clarified sesame oil, and mixtures thereof;

the effervescent agent is sodium bicarbonate;

the acid agent is citric acid; and

the active ingredient is ibuprofen.

12. The composition of claim 1, wherein the composition comprises:

at least one skin permeation enhancer in an amount from about 1% to about 5% by weight based on the total weight of the composition; and

at least one active ingredient present in an amount from about 1% by weight to about 10% by weight based on the total weight of the composition;

wherein the composition further comprises:

at least one effervescent agent present in an amount from about 30% to about 70% by weight based on the total weight of the composition;

at least one acid agent in an amount from about 20% to about 40% by weight based on the total weight of the composition; and

wherein

the skin permeation enhancer comprises isopropyl myristate, cetyl palmitate, clarified sesame oil, borage, evening primrose oil, spirulina oil, sunflower oil, safflower oil, flaxseed oil, walnut oil, canola oil, soybean oil, and mixtures thereof;

the effervescent agent comprises sodium bicarbonate, potassium bicarbonate, lithium bicarbonate, magnesium bicarbonate, calcium bicarbonate, ammonium bicarbonate, and mixtures thereof;

the acid agent comprises citric acid, succinic acid, fumaric acid, adipic acid, malic acid, and mixtures thereof; and

the active ingredient comprises aspirin, sodium salicylate, choline magnesium trisalicylate, salsalate, diflunisal, salicylsalicylic acid, sulfasalazine, olsalazine, acetaminophen, indomethacin, sulindac, etodolac, tolmetin, diclofenac, ketorolac, ibuprofen, naproxen, flurbiprofen, ketoprofen, fenoprofen, indoprofen, oxaprozin, mefenamic acid, meclofenamic acid, piroxicam, tenoxicam, meloxicam, lornoxicam, phenylbutazone, oxyphenbutazone, nabumetone, diphenhydramine hydrochloride, clemastine fumarate, brompheniramine maleate, chlorpheniramine maleate, dexchlorpheniramine maleate, triprolidine hydrochloride, promethazine, hydroxyzine hydrochloride, terfenadine, astemizole, azatadine maleate, cyproheptadine hydrochloride, loratadine, carbinoxamine maleate, diphenylpyraline hydrochloride, phenindamine tartrate, triprolidine hydrochloride, methdilazine hydrochloride, trimiprazine tartrate, beclomethasone, dipropionate, triamcinolone acetonide, prednisone, Sumatriptan/Imitrex, Imigran, dihydroergotamine, ergotamine tartrate, dolasetron mesilate, dotarizine, flupirtine, tenosol, tolfenamic acid, arotinolol, dihydroergocryptine, cyclosporin, azathioprine, methotrexate, glucocorticoids, penicillamine, hydroxychloroquine, colchicine, allopurinol, probenecid, sulfinpyrazone, ginseng, bilberry, black cohosh, cat's claw, cayenne, chamomile, chaste tree, cranberry, echinacea, eleuthero, ephedra, evening primrose oil, feverfew, flax, garlic, ginger, ginkgo, golden seal, green tea, hawthorn, kava, kava, licorice, milk thistle, peppermint, saw palmetto, St. John's wort, methylsulfonyl methane, DMSO, and combinations thereof.

13. A method of preparing a pharmaceutical composition for transdermal delivery comprising combining at least one skin permeation enhancer with at least one active ingredient or pharmaceutically acceptable salt thereof, at a temperature sufficient to dissolve the active ingredient without decomposing the active ingredient to obtain an

enhancer mixture; and wherein preparation of the composition is accomplished at ambient temperature.

14. A method of claim 13, wherein the skin permeation enhancer is present in an amount from about 0.1% to about 20% by weight based on the total weight of the composition.

15. A method of 14, wherein the active ingredient is present in an amount from about 0.1% to about 30% by weight based on the total weight of the composition.

16. A method of claim 15, further comprising at least one effervescent agent wherein the effervescent agent is present in an amount from about 10% to about 90% by weight based on the total weight of the composition.

17. The method of claim 16, wherein the composition is prepared in a pharmaceutical formulation comprising tablet, gel, spray, and cream.

18. A method of treating and/or alleviating pain, aches, and inflammation comprising administering to a human being a pharmaceutical composition for transdermal delivery comprising:

at least skin permeation enhancer; and

at least one active ingredient or pharmaceutically acceptable salt thereof,

wherein the composition for transdermal delivery is administered to a human being at least once during a 24 hour period.

19. The method of claim 18, wherein the composition is tablet comprising:

at least one skin permeation enhancer in an amount from about 1% to about 5% by weight based on the total weight of the composition; and

at least one active ingredient present in an amount from about 1% by weight to about 10% by weight based on the total weight of the composition;

wherein the composition further comprises:

at least one effervescent agent present in an amount from about 30% to about 70% by weight based on the total weight of the composition; and

at least one acid agent present in an amount from about 20% to about 40% by weight based on the total weight of the composition;

wherein

the skin permeation enhancer comprises isopropyl myristate, clarified sesame oil and mixtures thereof;

the effervescent agent is sodium bicarbonate;

the acid agent is citric acid; and

the active ingredient is ibuprofen;

wherein the composition is a tablet; and

wherein the composition for transdermal delivery is administered to a human being at least twice during a 24 hour period.

20. The method of claim 18, wherein the composition for transdermal delivery comprises:

at least one skin permeation enhancer in an amount from about 1% to about 5% by weight based on the total weight of the composition; and

at least one active ingredient present in an amount from about 1% by weight to about 10% by weight based on the total weight of the composition;

wherein the composition further comprises

at least one effervescent agent present in an amount from about 30% to about 70% by weight based on the total weight of the composition;

at least one acid agent in an amount from about 20% to about 40% by weight based on the total weight of the composition; and

wherein

the skin permeation enhancer comprises isopropyl myristate, cetyl palmitate, clarified sesame oil, borage, evening primrose oil, spirulina oil, sunflower oil, safflower oil, flaxseed oil, walnut oil, canola oil, soybean oil, and mixtures thereof;

the effervescent agent comprises sodium bicarbonate, potassium bicarbonate, lithium bicarbonate, magnesium bicarbonate, calcium bicarbonate, ammonium bicarbonate, and mixtures thereof;

the acid agent comprises citric acid, succinic acid, fumaric acid, adipic acid, malic acid, and mixtures thereof; and

the active ingredient comprises aspirin, sodium salicylate, choline magnesium trisalicylate, salsalate, diflunisal, salicylsalicylic acid, sulfasalazine, olsalazine, acetaminophen, indomethacin, sulindac, etodolac, tolmetin, diclofenac, ketorolac, ibuprofen, naproxen, flurbiprofen, ketoprofen, fenoprofen, indoprofen, oxaprozin, mefenamic acid, meclofenamic acid, piroxicam, tenoxicam, meloxicam, lornoxicam, phenylbutazone, oxyphenbutazone, nabumetone, diphenhydramine hydrochloride, clemastine fumarate, brompheniramine maleate, chlorpheniramine maleate, dexchlorpheniramine maleate, triprolidine hydrochloride, promethazine, hydroxyzine hydrochloride, terfenadine, astemizole, azatadine maleate, cyproheptadine hydrochloride, loratadine, carbinoxamine maleate, diphenylpyraline hydrochloride, phenindamine tartrate, tripeleminamine hydrochloride, methdilazine hydrochloride, trimiprazine tartrate, beclomethasone, dipropionate, triamcinolone acetonide, prednisone, Sumatriptan/Imitrex, Imigran, dihydroergotamine, ergotamine tartrate, dolasetron mesilate, dotarizine, flupirtine, tenosol, tolfenamic acid, arotinolol, dihydroergocryptine, cyclosporin, azathioprine, methotrexate, glucocorticoids, penicillamine, hydroxychloroquine, colchicine, allopurinol, probenecid, sulfinpyrazone, ginseng, bilberry, black cohosh, cat's claw, cayenne, chamomile, chaste tree, cranberry, echinacea, eleuthero, ephedra, evening primrose oil, feverfew, flax, garlic, ginger, ginkgo, golden seal, green tea, hawthorn, kava kava, licorice, milk thistle, peppermint, saw palmetto, St. John's wort, methylsulfonyl methane, DMSO, and combinations thereof; and wherein the composition for transdermal delivery is administered to a human being at least twice during a 24 hour period.